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E. RIPLEY, EDITOR OF THIS NUMBER.

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THE STUDY OF MATHEMATICS.

WE have been much interested of late in the perusal of an article from the pen of Sir William Hamilton, on the influence of Mathematics as a mental discipline; and, though we are not prepared to indorse all his views on this point, the importance of the subject as connected with the profession of teaching, together with the standing and reputation of the author, render his views worthy the attention and respectful consideration of teachers. It may be premised that the question he discusses relates not to the *value of mathematical science*, considered in itself, or in its objective results, but to the utility of *mathematical study* as a means for developing and training the intellectual powers. For while contending against mathematics as the *exclusive*, or even the *principal* study employed in mental culture, he does not question the expediency of leaving it to find its proper level among other branches of instruction.

His reasoning proceeds upon the assumption that "different studies cultivate the mind to a different development;"

and that the end of a liberal education, (that is, of all education not professional,) is "the general and harmonious evolution of all its faculties and capacities in their relative subordination,"—an assumption, the soundness of which few will be disposed to question.

He then labors to prove the following proposition: "If we consult reason, experience, and the common testimony of ancient and modern times, none of our intellectual studies tend to cultivate a smaller number of the faculties, or in a more partial or feeble manner, than mathematics." And he affirms that this "is acknowledged by every writer on education, of the least pretension to judgment and experience." To show that even Sir William Hamilton may be betrayed by the heat of argument into extravagant and reckless assertion, it will be necessary merely to say that the article was written in opposition to the published opinions of no less distinguished a scholar, and writer than Whewell of Cambridge University, of whom Hamilton himself holds the following language: "Mr. Whewell has already, by his writings, approved to the world, not only his extensive acquirements in mathematical and physical science, but his talent as a vigorous and independent thinker."

But to proceed. In support of the main proposition referred to above, he first cites the testimony of Bernhardt, "one of the most intelligent and experienced authorities on education in Prussia:"

"It is asked: *Do mathematics awaken the judgment, the reasoning faculty, and the understanding in general, to an all-sided activity?* We are compelled to answer, *No.* * * The slightest survey of the sciences teaches us that mathematics tend necessarily to induce that numb rigidity into our intellectual life, which, pressing obstinately straight forward to the end in view, takes no account of the means by which, in different subjects, it must be differently attained."

He next quotes from Von Weiler, Director of the Royal Institute in Munich, who says:

"Mathematics have to do only with the intuitions of space and time, and are therefore limited, even in their foundation,

to a special department of our being. * * * By mathematics, the powers are less stirred up in their inner essence, than drilled to outward order and severity; and consequently manifest their education more by a certain formal precision, than by their fertility and depth. This truth is signally confirmed by the experience of our own Institution. The best of our mathematical scholars, when brought into comparison with those engaged in other studies, could hardly compete with the most ordinary of these, not merely in matters of language, but in every thing which demanded a more developed faculty of thought."

He next cites from Prof. Klumpp, as follows:

"Mathematics cultivate the mind in a single phase only. Their object is merely *form* and *quantity*. They thus remain, as it were, only on the surface of things, without reaching their essential qualities, or their inner and far more important relations, namely, the feelings and the will; and consequently, without determining the higher faculties to activity. * * * Strictly speaking, the understanding alone remains to them, and even this is cultivated and pointed in one special direction only."

Goethe, the great German poet, is introduced as saying, that "the cultivation afforded by mathematics is in the highest degree one-sided and contracted." And even D'Alembert, the mathematician, is thus made to testify against his favorite science:

"If mathematics only make straight the minds which are without a bias, so they only dry up, and chill the minds already prepared for this operation by nature."

The author then proceeds to argue the question on abstract grounds, and affirms that all that has been asserted of the unfavorable tendencies of the study of mathematics as a gymnastic of the mind, might have been inferred beforehand from *its ends, its objects, and its mode of considering its objects*. He thus sums up his reasoning on these points: "An excessive study of the mathematical sciences not only does not prepare, but absolutely incapacitates the mind for those intellectual energies which life requires. We are thus

disqualified for observation, either internal or external, for abstraction and generalization, and for common reasoning; nay, disposed to the alternative of blind credulity, or of irrational skepticism."

From some of the author's assertions most of our readers will doubtless dissent. Such as this, for example: "To minds of any talent, *mathematics are only difficult because they are too easy.*" Or this: "In mathematics, dullness is elevated into talent, and talent degraded into incapacity." And he quotes approvingly from the learned Scaliger, to the effect that "a great genius can not be a great mathematician." If this is true, in what class shall we rank such men as Dugald Stewart, Isaac Newton, Descartes, Mallebranche, and Pascal?

The conclusion to which we are brought by the arguments and illustrations which Hamilton adduces, and the authorities he cites, is this: Mathematical exercises, merely as a gymnastic for the mind, should seldom, and perhaps never, be employed except in connection with other studies, and even then only to a limited extent.

A WISE ECLECTICISM IN TEACHING.

"Prove all things; hold fast that which is good."

This injunction of the Apostle is cited both as a warrant for a proper eclecticism, and a definition of what such eclecticism is. It seems to us that the man of progress in any department of life—the man who would make the utmost of himself, and accomplish the utmost possible for himself and for others—must be essentially an eclectic. By this is meant, that such a man will gladly avail himself of all the means for accomplishing his purposes, that seem to him adapted to the end he has in view. In fact, to do otherwise would be the act of one devoid of sense. The difference between such a man and one who is content to go on in the old humdrum way his father and grandfather did before him, may be thus given: The one has constantly before him an ideal of something better than he has yet realized; the other

is never disturbed by any such consciousness of imperfection. The one is prepared to expect improvements and to welcome them whenever presented, and is ready to incur any expense or trouble which may be requisite to introduce them; the other is satisfied with things as they are, as good enough for him, and so he lacks all incentive to effort, or sacrifice for any that is better.

What is thus true of the other departments of life, is equally true of teaching. Antecedently to all experience and observation, we might have inferred that the business of education would be in some sense empirical,—one of experiments in no small degree,—and hence one susceptible of constant improvement,—one in which a teacher, though absolutely the best that ever lived, could never feel that for him, there was nothing more to learn, or to improve in his profession.

But what is eclecticism in teaching? It is the prompt adoption from whatever quarter, of any study, or method of study, that upon examination commends itself to the teacher's judgment. Of course, to be a *wise* eclecticism, this adoption of new studies or new methods should only take place after satisfactory evidence of their appropriateness and value in the work of instruction. It is evident that the teacher should have no such prejudices against proposed improvements as to preclude them a hearing, or if need be a trial; unless, indeed, as is sometimes the case, they shock the plainest principles of philosophy and common sense. "Latin in twelve lessons without a master," may be dismissed without ceremony as the baldest charlatanism. The man who proposes a method of taking pupils to the very summit of the hill of science without toil or effort on their part, he may turn his back on, as presumptively either knave or fool; for his project contravenes one of the most obvious, as well as the most important principles of the divine government; namely, that nothing intrinsically valuable shall be obtained without exertion. The writer once heard the remark from a distinguished man, that "the Americans were a hobby-horsical nation." Whether it is characteristic of

us as a people, that we are specially given to riding hobbies, we need not stop to inquire: the chief concern of those who read the *Journal* should be, to see to it that *our profession* is not justly exposed to such an imputation. But teachers, like other people, do sometimes mount hobbies, and ride fast and far,—until, like one of old, they may be known chiefly by their *furious driving*.

While, therefore, the teacher should avoid the evil in question, that of catching at any and every alleged improvement in his profession, without due examination, he should ever be ready to examine and adopt whatever seems adapted to further the great interests of education. In short, let him prove all things, and then hold fast that which is good.

MAKE STUDY INTERESTING.

WE have neither sympathy nor patience with those, who claim to have found a way to educate the mind, without toil on the part of the learner. There is no royal road to learning, if by this is meant, that wealth, or social position may procure for the few, who may be thus favored, the substantial advantages of learning, without serious effort on their own part. There is no short, and easy method of reaching the lofty heights of Parnassus. The kingdom of science and learning, like that of heaven, can only be entered by earnest personal effort. Like the latter, "it suffereth violence, and the violent take it by force." And the knowledge of this fact should daunt or discourage no one; it should rather be an incentive to effort. We are so constituted that exertion, wisely directed, is positive enjoyment. It may well be doubted, whether the actual attainment of most of the objects we seek, ever yields the satisfaction which their pursuit afforded us. But be this as it may, the paths of learning are often steep, and sometimes they are rugged and stormy; but they can always be made for the diligent student paths of pleasantness, and paths of peace. And this is the work for the teacher,—to invest study with attractions,—to make

it appear not only honorable and ennobling, but a source, in itself, of real enjoyment.

The following remarks in relation to the influence of Dr. Arnold upon his pupils in this matter, are cited as quite in point, and at the same time as highly suggestive of one of the secrets of a teacher's power:

"Dr. Arnold's great power as a teacher resided in this, that he gave such intense earnestness to life. Every pupil was made to feel that there was a work for him to do,—that his happiness, as well as his duty, lay in doing that work well."

And after speaking of his "unfeigned regard for work of all kinds, and the sense he had of its value both for society and the perfection and growth of the individual," the writer goes on to say:

"His hold over all his pupils perfectly astonished me. It was not so much an enthusiastic admiration for genius, or learning, or eloquence, which stirred within them; it was a sympathetic thrill, caught from a spirit earnestly at work in the world,—a work that was founded on a deep sense of its duty, and its value."

These quotations, in relation to one of the greatest teachers of modern times, not only show what is necessary for the teacher to do, but also suggest the most effectual way of doing it. The pupil, so far from being permitted to entertain the idea that study is and must necessarily be a drudgery, must be taught to love work as a good in itself, as well as the necessary means of good; and that such love of work is one of the most valuable ends to be secured in education. And this can not effectually be taught by precept alone, but must be seconded and enforced by example. It must be a sympathetic thrill, caught from a spirit earnestly at work in the teacher himself. And we do not believe there is a teacher living, who can permanently interest his pupils in the studies requisite to their highest culture, who does not *love study as such* himself.

REPETITION.

AN inspired teacher once gave the following as the only sure method of imparting religious instruction to children: "Precept must be upon precept, precept upon precept; line upon line, line upon line; here a little, and there a little." And what is true of religious truth, is measurably so of all the instruction which teachers are expected to impart to their pupils. Those who have had experience in the matter, know that it is not enough to explain, and illustrate, and demonstrate principles, and processes *once or twice*; but that here, too, there must be precept upon precept, and line upon line. And any teacher, however great his experience, may sometimes be surprised to find, how little some of his pupils comprehend to-day of facts and principles, which they seemed to comprehend most fully ten days ago. Let the teacher who reads this statement, and feels perhaps disposed to doubt its correctness, make the experiment upon the first class he calls before him, and, if the experiment be a fair one, he will doubt no longer. Hence the necessity for *repetition* in the statement, and illustration of important principles; and hence, too, the necessity for *frequent and searching reviews*. Quintilian says: "A teacher ought not only to instruct his pupils; but also to interrogate them frequently, and test their proficiency."

We think it well for these reviews occasionally to take the form of written examinations,—in some respects, the best test of the proficiency of a large class that can be given; and one which will, now and then, bring to light an amount of ignorance in some of its members, that neither the teacher, nor the class, could have believed to exist. Precept upon precept, and line upon line then, is as necessary in our day, and in our profession as it was in Isaiah's.

"The buds that are longest in blossoming will last longest in flower."—*Scott*.

"The fruit that will fall without shaking,
Is rather too mellow for me."—*Anon*.

ARNOLD ON PUNISHMENT IN SCHOOLS.

"THE beau ideal of school discipline with regard to young boys would seem to be this, that whilst corporeal punishment was retained on principle, as fitly answering to and marking the naturally inferior state of boyhood, and therefore as conveying no peculiar degradation to persons in such a state, we should cherish and encourage to the utmost all attempts made by the several boys as individuals to escape from the natural punishment of their age by rising above its naturally low tone of principle."

Speaking of the Rugby School, he says:

"Flogging will be only my *ultima ratio*; and talking I shall try to the utmost. I believe that boys may be governed a great deal by gentle methods and kindness, and by appealing to their better feelings, if you show that you are not afraid of them. * * * But of course deeds must second words when needful, or words will soon be laughed at."

JOHNSON'S IDEA OF GENIUS.

"ACCIDENTS sometimes remembered, and perhaps sometimes forgotten, produce that particular designation of mind, and propensity for some certain science or employment, which is commonly called genius. The true genius is a mind of large general powers, accidentally determined to some particular direction."

ESTIMATE OF TEACHERS.

PLATO, when near his end, blessed God for three things, viz.: that he was a man, and not a beast; that he was born in Greece, and brought up in the time of Socrates, so that he could enjoy the benefit of his instruction.

Gibbon says: "A liberal mind will delight to cherish and celebrate the memory of its parents; and *the teachers of science are the parents of the mind.*"

ESTIMATE OF TEACHERS IN THE SIXTEENTH CENTURY.

"It is a pity that, commonly, more care is had, yea, and that among very wise men, to find out rather a cunning man for their horse, than a cunning man for their children. They say nay in words, but they do so in deed. For to the one they will gladly give a stipend of two hundred crowns by year, and loth to offer to the other two hundred shillings. God, that sitteth in heaven, laugheth their choice to scorn, and rewardeth their liberality as it should; for he suffereth them to have tame and well-ordered horse, but wild and unfortunate children; and therefore, in the end, they find more pleasure in their horse than comfort in their children."—*Roger Ascham, Preceptor of Queen Elizabeth.*

PROVERBS FROM THE GERMAN.

WHAT Johnny did not learn, John will never learn.
He who does not improve to-day, will be worse to-morrow.
He who wishes the kernel, must break the shell.
He who makes nothing of himself, is nothing.
He into whose mouth the water runs, learns to swim.
God permits us to sink but not to drown.
A little too late is much too late.
Severity I have been sorry for; mildness, never.
Let him who has a good seat, sit still.
God's mills grind slow, but remarkably fine.
The worst berries are not those the wasps feed on.

Envy does merit, like its shade, pursue;
And like the shadow, proves the substance true.

SOME THOUGHTS ABOUT TEACHING GEOGRAPHY.

How to teach geography is one of the most difficult general problems of the school-room. The object to be secured in the study of this science is a knowledge of the earth's surface; a field of research seen at a glance to be wide and varied, and more deeply *felt* to be so with every term's work. In view of this range, limited in its extent only by the limits of the earth, and in its variety and interest only by the earth's duration, the first practical question becomes—*what* to teach? What facts and what principles will constitute the best groundwork for after acquirements and life-long use? It is not easy to limit an answer to this inquiry, but it seems quite certain that prominent among these necessary foundation stones are the ideas of *Place*. To know where places are is very far from knowing all geography, but it is one of the essential parts of such knowledge.

If, when the student comes to the broader scope of what is called Physical Geography, all his facts and the theories they support are floating loose over the world, he might almost as well have similar facts of Jupiter or Neptune. He may know there are such cities as Paris and Rome, and Calcutta, and these names may suggest buildings and builders, streets, bridges, events and men, but the knowledge is like three balls rolling at large, unless it is *located* by accurate notions of place in, and distance from some fixed country or point. The climate and productions, even the people of a country, depend greatly for their characteristics upon its situation; the zone *in* and the slope *on* which it lies silently determine its progress and destiny.

It may be possible, by beginning right, to inspire such an interest in the study of geography as to make the *whole* work pleasant; but this is the rare exception. Pupils dislike the dull minutiae of "exactly where;" they tire of drilling over hard names and meaningless figures; they leave to-day's "state" or "map-lesson," and forget it before to-morrow's can be put by its side ready for comparison; they have yet to learn by experience that *absolute* knowledge is of little worth. And the teacher must take scholars and books as he finds

them; those very ignorant, and these of necessity very incomplete, and with such materials work out the desired results as best he can.

But how to do it? There are various means designed to aid in the learning of Place. Many school geographies are constructed with special reference to this point, but if left to themselves such books must fail to secure the end in view. "Perpetual vigilance" in the teacher is the price of *success* in this, as of *safety* in other things. The student gets the material from the book, he learns the long list of rivers, mountains and cities; now he must *distinguish* them, point them out singly, *tell* where they are, compare their distance and direction. It is better yet, if at the same time he is interested in learning something else about them; indeed this work should always be in progress.

The position of places once found out, nothing *fixes* it like map-drawing on paper, black-board, or globe. If the pupil knows New England well enough to make a recognizable map of it, he will never say that Boston is west of Hartford, or that the Merrimac River runs into Long Island Sound. And if this ability is valuable in respect to a region in which lies all his personal knowledge of the world, how much more is it so in respect to states he has never visited, and countries beyond the sea which he never *will* visit. This is a slow work; a river, a state, a division, a continent at a time; and the end is not accomplished until both continents, with their large rivers, high mountains, and great towns, their relative length and breadth and area are literally "engraved" on the memory. He can not of course be expected to map down, or to know every particular town and river; this is to be the unfinishable work of his life.

Map-drawing to this extent makes it necessary to know quite exactly the position of many places, and for this purpose the use of the circles of the earth and the ability to read latitude and longitude are essential. There are few people who do not hesitate when attempting to tell, even from the map, where a place is; and this is a point worthy the attention of teachers. There are two ways of locating Boston. "It is in the eastern part of Massachusetts, on Massachusetts

Bay," and "It is in $42^{\circ} 21'$ north latitude, and $71^{\circ} 4'$ west longitude, from Greenwich." Often and for many purposes the first is enough, but it gives no such clue to the situation of Boston as would enable one to compare it with that of New York or St. Louis.

By using the map the student may have come to know the direction of these places from each other, but he can hardly have any idea of their distance, nor can he accurately represent either. He must find a basis for an exact comparison by observing which way, and how far each is from the same great fixed circles. But nothing is more dry and difficult than to commit to memory these numerical details by themselves, and it is hardly possible for any common mind to retain absolutely the latitude and longitude of many places. What the scholar wants then is the ability to *read* very readily this "alphabet of place," and the *habit* of doing so whenever his attention is directed to any geographical fact. Let his maps be drawn with constant regard to accuracy in this respect, and he will have unconsciously acquired a correct practical knowledge of location. He will rarely be at fault in telling the countries crossed by any great meridian or parallel.

Another invaluable aid in securing this general yet exact knowledge, is the artificial globe. Of course the world must be studied in detail, but there should be a perpetual reference to the whole. The scholar who knows London only on the map of England, can hardly find it on the globe, and he finds Spain and China taken separately quite unlike the Spain and China at the opposite ends of a continent. For this purpose *drawing* on a globe as well as on slate and board will be found great assistance. The outlines learned in parts will thus be brought together in their true relative position and proportion, and the general plan of the land and water more securely fixed in the mind than by only looking at a printed globe.

Again, it may be repeated, the location of places can not be separated from the study of other parts of geography. It is, in one sense, the beginning, but it can not be learned by itself, finished, and left for something else; it is the ac-

companiment and helper of all the rest. It is one of the things to be done *habitually*. A volcano is in eruption; a ship is wrecked; a battle is fought; a mine discovered; a city built; remarkable phenomena are observed; our interests or our culture leads us to value the item; and our first question is—where? *Where* before *when*, before *why*, before *how*.

All that can be done in the schools will at best but lay the foundation, arouse interest. Let the mind properly work, and prepare the child to be an intelligent and appreciative daily student of geography to the end of his life.

Resident Editor's Department.

SCHOOL DISCIPLINE.

BY REV. E. P. BOND.

It will be my object now to point out some of the mistakes which are committed, often unconsciously, by teachers in the school-room.

Little errors seriously vitiate what is good in the main. Little mistakes may do much mischief in so delicate a work as the control of a school.

1. One mistake that is made is neglect to see that scholars are properly employed when not engaged in recitation. If a class of children are dismissed from the recitation-seat and another called, it is not enough for a teacher to say, "Let me see all now in their seats engaged in doing something." It is good advice; but children are not to be expected to employ their time to the best advantage without something more definite than this. A few of the more advanced pupils may judiciously use their time without minute and specific directions; but the great majority need some special supervision

and advice in reference to how they shall employ their time. A teacher must care for all the minute details of the school-room, or he will not succeed. He must not only have an order of recitations, but an order of study and employment. Nothing should be left to hap-hazard. Avoiding as much as possible the appearance of a *stern, mechanical, machine-like* order of things, there should, nevertheless, be in his mind not only a general plan, but a detailed plan for the day's work, developing a cheerful systematic adherence to the work. In this way much mischief and disorder will be prevented, and the old adage respecting an ounce of prevention suggests a most valuable hint to the teacher. It is this failure fully to grasp the minute details of the work in the school-room that is one source of trouble in the management of a school. Hence, when a class is not occupied in recitation, the teacher should endeavor to assign them some definite employment, if possible.

2. Another mistake made is in failing to distinguish between a *departure from propriety* and a *violation of right*. I once heard of a police justice, whose invariable sentence against an offender arraigned before him was said to be, "seven dollars and costs," whatever the offense was. If what report said of *his honor* be true, the example is not a good one for the teacher to copy.

There is a tendency in some teachers to fall into the habit of affixing a penalty to every violation of propriety as well as every transgression of moral principle. And this is one of the reasons why certain teachers whose early efforts gave promise of success incur the dislike of their pupils. They are most excellent and exemplary persons, the exact pattern of precision and propriety, but for some mysterious reason when they are brought in contact with a school there is a *repulsion* instead of an *attraction* excited. They aim at perfect propriety in the school-room; inflict many penalties to secure it; are sure to have a great many pupils that they don't know what to do with; and have to sigh often that it falls to their lot to encounter such incorrigible children.

It seems at first a mystery that they do not succeed. But

if you sit down and observe the course of events in their school-room, you soon detect the secret. James loses two credits for not standing erect through the recitation; Susan must deduct one credit for getting out of position in her seat; while Fannie contrives to whisper to her neighbor with impunity, and William slyly shows three or four school-mates a comic picture, at which they laugh and are reproved, while the real rogue is unsuspected. Now it can not be expected that a teacher will always detect every violation of order. But if mere departures from propriety are punished as criminal offenses, then you may be sure that every opportunity will be taken to commit these more serious offenses. The man who was fined for violating law when he was really innocent, only showed what is in human nature, when he declared that if he was punished for crime when he was not guilty, he would do what was wrong; for he would not pay a fine and not do the deed. There is nothing that will do more to break down the influence of a teacher and strip him of his prestige, than the violation of the delicate and sensitive sentiments of justice in the bosom of the child. The teacher must recollect that these sentiments of justice are written on every child's heart by the finger of the Eternal Creator, and the hand-writing should never be marred by any act of his.

It is a teacher's business to inculcate propriety, but never to do any thing that shall lead pupils to think that he estimates a mere conventional propriety of the place as important as one of the *ten* commandments. If a boy through negligence or thoughtlessness holds his book wrong, or assumes an ungraceful and improper position, the teacher may do him a great kindness in correcting him, for the formation of good habits in these matters is important. But it can be done by a look of the eye, a motion of the hand, or at most a kind word, much better than by inflicting a penalty.

To be continued.

COMPOSITION.

A SUBSCRIBER asks at what age pupils should commence writing composition, and also for some hints in relation to the exercise. The subject is an important one, and it has not received deserved attention in our schools. We can see no good reason why pupils may not be able to compose readily and intelligently at the proper age for leaving school, and unless they can do so they are not properly educated. Every person who intends to occupy any position of importance or respectability, should be able to write a good letter; yet how few, comparatively speaking, can do this on leaving school.

But we will proceed to give a few practical hints, and hope some of our readers will give us their views, and we shall be glad if aught can be said or done to awaken more interest in the subject, and so lead to better results than we have yet met with in most schools.

1. *Commence Early.*—As soon as pupils are able to write or print words upon their slates they may begin to compose sentences. These of course must be simple at first, and some familiar subject must be given—a subject in which the children will feel an interest. Let us suppose a teacher has four or five pupils whom he wishes to initiate into the art of composition—a term, by the way, which it may not be best or necessary to use with beginners. At first the teacher may hold a familiar conversation with them, and by kindness and gentle ways induce them to express their thoughts on some common subject. We will suppose “Horse” to be the subject. The first step may be a sort of object lesson in which the teacher shall, by appropriate questions, awaken interest and thought. As a next step the pupils may be asked to write upon their slates something about a horse, and then be called to read aloud what they have written. The result may be something as follows:

William.—I saw a white horse this morning.

Mary.—A horse can run very fast.

Thomas.—My father has a lame horse.

John.—The horse is called an animal and he is very useful.

Sarah.—A horse eats hay and oats.

Of course these first exercises, as written by the pupils, may contain errors, but if some thought or idea is clearly expressed, one important step has been taken. The errors may be pointed out, and the pupils by kind words be encouraged to further effort, and they will soon be able to write several sentences. And they will take pleasure in doing it. The exercise may be called "sentence building." They may be told that sentences are made of words, and words of letters.

2. *Always be careful in the selection of a subject.*—Friendship, Temperance, Charity, Virtue, &c., are all excellent subjects, but not at all suitable as themes for beginners in composition writing. Under this head we would say briefly, give some subject about which you may reasonably expect the pupils to have some thoughts or ideas, and then lead them to express their own ideas in their own way, always encouraging them in the use of simple language. These simple exercises for beginners may be given every day.

3. *For more advanced pupils a regular exercise in composition may be required as often as once in two weeks.*—Occasionally let them be required to write a letter in which they may give a description of some place or object of interest to them. An account of some visit or journey, a description of the town in which they live, or of the school they attend, etc., may serve as the basis of a letter. Let them be taught how and where to commence and end a letter, how to fold and superscribe it, &c.

4. *Occasionally make the re-writing of some story a composition exercise.*—On one day read to the school some interesting and appropriate story, giving them to understand that they are to re-produce the same at a future time in their own words. This will be both an interesting and useful aid in the right direction, and if a pupil can write out the substance of some story he has heard read or narrated, he will find no difficulty in taking more advanced steps.

5. *Give a few words to be incorporated into sentences.*—This may be a daily exercise, given to occupy time that

might otherwise be spent in idleness or mischief. For beginners it will be well for the teacher to place a few words on the blackboard and request the pupils to write as many sentences as there are words, having one of the words in each sentence. For young pupils such words as dog, horse, kite, kitten, doll, &c., may be used. More advanced pupils may go farther and incorporate several designated words into one sentence. This will prove a useful daily exercise for occupying the "spare moments" which most pupils have. Let us suppose the teacher places upon the blackboard in the morning the following words: "pleasant, improve, scholar, time, morning." It is understood that the older pupils are to write or "build" a sentence from these words, and that the sentences are to be read before the school in the course of the day. We will imagine two of the sentences to be as follows: "It is a pleasant morning, and every good scholar should strive to improve his time in learning useful lessons." "It is pleasant to see a scholar going to school early in the morning with a desire to improve his time in studying the lessons of the day." Exercises of this kind may be extended, and they will, as we know from experience, prove very useful and interesting.

But we must defer additional hints for a future time. If the simple suggestions already given shall prove of service to any we shall be glad.

For the Common School Journal.

LOVE OF TRUTH.

WHAT is more beautiful, more elevating than Truth? Look where we will among the works of nature and our admiration is called forth by the perfection and symmetry of objects which many pass by unnoticed, not dreaming of beauty in them. At every step in the acquisition of knowledge we meet new proofs of one creating hand ordering every thing in strictest accordance with the laws of science. That which seemed but chaos we see to be but part of one harmonious whole. That which seemed too great to be measured or too

small to be measured, is balanced, is perfect. Without failure, without turning aside, without overpassing, the planets move on in their orbits, the seasons pass in order, the wealth of the mines, the treasures of science are opened to man.

"Time and tide wait for no man;" what man would ask it? His fellow-man in whom he trusts makes him a promise; becoming a better man, he sees his promise to be wrong and retracts it; or becoming a worse man repudiates it, or circumstances beyond his control make it impossible for him to perform it; but the sun rises and sets, the waves ebb and flow as ever since the creation. No such contingency hangs over the fertility of his fields, or over the tides that bear hither and thither his merchandise.

One has said he would respect a person who should daily take from its cushion and replace a pin. In things small or great we instinctively give our respect to regularity and punctuality, to truth in manner and in time; especially, it may be, as exponents of Truth in duty, for many acknowledge obligations, who yet seem to think there is no need of exactness or punctuality in their discharge.

What but Right and Light is Truth? Perfection in nature, in sculpture, in painting, in oratory, in authorship, in art of whatever branch, claims our admiration. Yes, more, we demand this perfection; the simplest and the most elaborate work alike must in some way be the vehicle of Truth, or it is a failure.

How we admire one who in the common interchange of thought speaks his native language fluently, correctly and gracefully, for this alone.

That all this may be, the love of Truth must be the guiding influence. In what does he excel who loves not the object of his labors? To whom does the world owe the master-pieces of sculpture, painting, music? There is something grand in absorbing devotion to one aim, whatever it be; how much more if that aim be worthy, if its advancement be also the advancement of the Right.

What better can be our work than to cultivate in ourselves the love of truth, and by all the influence we can exert to

win those about us to the same love? Teach the little one to admire the bird, the flower, the sea-shell, the snow-crystal, the beautiful every where, to copy the right in every labor, to be true in form, time, intent, word, deed; true to man, to God.

A little less of gloomy repining, of useless fault-finding.

"A better lesson we are taught, by the lilies of the field,
A sweeter by the birds of heaven—which tell us in their flight,
Of One that through the desert air for ever guides them right."

October, 1862.

K.

For the Common School Journal.

WORDS IN EARNEST.

THERE is a great work to be done in our common schools: this no one will deny who considers for a moment the thousands upon thousands who for six hours every day are gathered together in our school-rooms, for the purpose of acquiring that knowledge which will fit them for the business of life.

It becomes then a question of great moment—"How shall the essential branches be most successfully taught?" To begin at the starting point—what is the best method of teaching children to read? A child comes into school for the first time, we will say, at four years of age; he knows usually one or two letters of the alphabet. How can we best (best means soonest) teach him to read, viz.: how can we teach him to call words correctly in the shortest possible time? Children usually remain in our public schools from eight to twelve years. In these years they must learn a great deal to fit them for the business of life, to say nothing of its duties and responsibilities. To learn to read is the first step; this is essential to an introduction to any and all other branches of study—true children learn much from oral instruction—but to any thing like study, reading must, as we have said, be the introduction. When we say learn to read, we mean simply to pronounce words correctly. The method which has been adopted for years and years ago has been to teach

first of all the twenty-six characters which go to make up our language. These have been taught from A to Z, in time varying from two weeks to as many years, according to the capacity of the pupil and the skill of the teacher. Within a few years the word system, so called, has been introduced. Of its success permit us to say a word. It is said that children will learn a word of three or four letters as quickly as a single letter. This we know to be true. *The, and, but, can, home, &c.*, can be learned very readily by taking one or two words at a lesson. Print the word upon the blackboard, *require* the pupils to print it upon the slate. This they will easily and cheerfully do, and after one or two lessons the word is fixed—they know it whenever and wherever they see it. This is so much gained; it pleases the children to be able to call a word readily; they like it better than calling simply a single letter. Care should be taken that they really know the *word*. "That is cat," said a little boy pointing to the letter "a," "for Miss C. said so;" and it was hard to convince him that it was not so. Children fall into errors of this kind from want of care. We have seen pupils who had learned one word a day for four or five weeks, who at the end of that time could read a little story prepared by their teacher, and read it correctly. From observation and experience we should say emphatically, *begin with words*. Teach many of the principal words in common use before teaching the alphabet at all. Then should it be found that the children do not know the letters, (strange as it may appear they *will* know nearly all of them,) teach the alphabet thoroughly. Teach A, B, C, &c., simply as letters—as you would teach that the sides, ends, top and bottom boards when fastened together make a box, so *b*, and *o*, and *x*, when put together, make the *word* box. Teach the pupils to spell the words they have learned to read. One great advantage of this plan, as it seems to us, is the interest thus awakened at the start.

But learning to read is no easy matter. The hill of science is hard to climb, and the first steps of the ascent are by no means the easiest. Patient persevering effort on the part of the teacher, and hard work on that of the pupil, are abso-

lutely essential; and the question often arises in my own mind whether we are not thinking too much of the *appearance* of our schools, and too little of real progress. To sit up and behave well, especially for the eye of visitors, is the lesson which too many of our little children learn at school, a long, long time before they learn to read. The former lesson is well, but "this ought ye to have done, yet by no means to leave the other undone." We are too apt to undervalue the time of little children in our primary schools. It is often their best time for learning. At all events, from experience and observation we are prepared to say that *the children in our public schools ought to learn to call words of one and two syllables well; to count, add, subtract, and multiply* (mentally of course) *during the first two years they spend at school.* This is as much time as they can afford to give to these topics;—understand us now as speaking of the majority of the pupils in our public schools, not of those whose parents expect them to remain in school for fifteen or twenty years, with no special object beyond, except it may be to squander the money they have toiled for a lifetime to acquire: we mean the "children of the people," those who have their own living to earn—they can not afford to lose a day of school life. These children at six or eight years of age should enter our intermediate schools, and having previously acquired the knowledge which seems to us to belong to the primary schools, they are prepared to begin study in earnest. Written arithmetic, *essential* geography (don't smile, we mean just this, and nothing more) now demand attention. Reading and spelling are of course continued; but permit us to explain *essential* geography. By this we do *not* mean to learn the name and location of every stream dignified by the name of river, every town which can boast of a church or school-house, and perhaps fifty or a hundred dwellings—we mean the United States and their capitals, the large rivers, large cities and towns, towns remarkable for historical associations, the principal railroads; the geography of foreign countries in the same way, though perhaps not so thoroughly: to this should be added the large lakes, seas, and oceans of the

world, and you have essential geography. But to keep a boy who has only six or eight years of school life trying to learn book geography as it is commonly taught, seems to us not merely nonsense, but a downright wrong. Reading, spelling, and practical arithmetic, are the essentials to a common school education; teach a little geography, a little history, and a very little grammar, but let these be *the* branches to which the energies of teachers and pupils shall be directed.

Make *every thing* practical. Let reading be learning to call words, rather than rhetorical display—spelling, learning to write words in common use; let arithmetic teach practical examples, not merely addition, subtraction, multiplication, and division. When Mr. B. takes John into his store, he wishes him to be able to make out a bill neatly and rapidly, to tell instantly how much twenty pounds of meal will cost at ten cents per pound, and not that he should be able to go through a form of explanation which astonishes so many visitors in our public schools, who may well wonder, not at the knowledge of the pupils, but at the amazing glibness of their tongues.

In this way, that is, by practical teaching, can our schools be made to accomplish the great end for which they are established.

Among the thousands of teachers who are employed in this state, there are many of earnestness and capability—many who are doing a great and good work for the rising generation. Some are in our cities, in large schools, known, understood, and respected, whose plans, great and successful, are copied by others, and made by them successful; many are in our country towns laboring just as faithfully so far as their work extends, but whose praise is not in the school-rooms simply because they are not known. To these, to all we would say, "Tell us how it is done;" what is the secret of your success? One teacher is eminently successful in one department of instruction, another in another. Why not make your knowledge useful to others? The machinery by which mind works upon mind is not patented. Why, then, keep your plans to yourselves? why not make them known

for the benefit of others? True, no teacher can copy another exactly, but a thorough successful teacher can do much for others by stating means employed by which success is attained. As well might we place upon our school-houses the factory notice, "No admittance without permission from the proprietor," as to pursue the course adopted by some of our Connecticut teachers. They have no information to give to others, and ask no help *from* others—"every man for himself," they say.

The best and surest avenue for communicating and securing information is through the Common School Journal. It is of course taken for granted that all earnest, successful teachers are subscribers at least, and many of them contributors to our educational journal. We do not of course include those who know every thing there is to be learned about teaching, but those who while discharging faithfully every known duty, are ever on the alert, ready to embrace a better way, and to carry out any plan better or more successful than their own. Why not furnish to others your own plans? Why not help those who have not the benefit of years of experience, that they instead of arriving at success by long and damaging experiments, may come up and walk by your side cheerfully and hopefully, knowing the way? This is no selfish work. We are dealing with that which is immortal, and while ignorance is sin, is not the sin of withholding knowledge of the better way a still greater sin? So it seems to us, Every burden thrown off by the inexperienced because too heavy to be borne alone, witnesses against the successful.

Let us then appeal to the successful teachers every where to come up to this work in earnest. Teach with all your energies, and while striving for the best way for yourselves, do not forget the inexperienced but not less zealous workers who are so often tempted to forsake their work, and to leave their high mission unfulfilled, for want—not of zeal, but of knowledge.

Shoulder to shoulder, hand to hand,
Each to the other true;
In this great work as brothers stand,
Keeping the end in view.

Good Teachers.

Our life is given us here on earth,
To live for that to come,
The mind is of immortal birth,
And earth is not its home.

Then let us work with all our might,
Work while 'tis called to-day,
Strong, faithful, earnest in the right,
Let's labor, watch, and pray.

NEW HAVEN, February 4th, 1863.

NELLIE C. C.

CONNECTICUT, February, 1863.

MR. EDITOR: It is really unfair for me to withhold my contributions from the Common School Journal.

One possessing such valuable experience, and endowed with more than ordinary power of mind ought to be willing to stoop and help those who are in need of assistance.

But to speak seriously, Mr. Editor, I wish to do my part in sustaining the Journal, and if I can write any thing acceptable I shall cheerfully do so.

It has not been my indifference, but because I am in diffidence that has kept me from contributing before, though I did not suppose you were in want of writers. Your first article in the February number convinces me that you would be pleased to receive many more letters from teachers.

You say, "will you give it the benefit of some of your thoughts about your daily work—what sort of a person a teacher should be." I answer, I will try to give my idea of a good teacher.

One who offers his services to the public as an instructor of youth should himself be well informed. His mind should be a store-house of valuable knowledge, arranged with such order that he can easily find and bring forth any facts which circumstances may call for. He should be fitted to take a prominent part in public affairs, that old as well as young may be benefited by his knowledge and wisdom.

His influence in the community should be such that his

pupils can not fail to observe the respect with which he is treated and the esteem in which he is held.

He should exercise self-control—have all his powers of body and mind in complete subjection.

How many weaken their influence by giving way to passion, thus lowering themselves in the eyes of those to whom they should be an example in all goodness.

How different the effect on a school when the governor thereof shows by his looks and actions that punishment gives him no savage enjoyment, because affording an opportunity to let out the pent up fires of passion shining through his face; but that it is inflicted from a sense of duty to the offenders and those who have witnessed his violations of the laws of the school.

If teachers and parents so used the rod of correction as to convince the offending that not passion but kindness called for punishment, would we not see more well behaved and orderly children and youth?

A good teacher should possess much of the spirit of the Great Teacher and should be a professed believer in Him. As he is in daily contact with beings who have the germ of immortality within them, whose existence is never to end, and whose future depends on the characters which they form this side the boundary of our earthly life, he should be exceedingly careful to avoid saying or doing aught that will be as a stumbling block in the way of true advancement. He has much to do in moulding character, and by his words and acts may do much to lead his pupils to love, reverence and obey their Father in heaven, and if they grow to manhood and womanhood with Christian characters what a blessing to the world do they become; taking a deep interest in all that relates to human progress, throwing their energies into the work they are best fitted to perform and which Providence calls them to, they do not a little towards making the world a better and happier place. The good teacher so walks with his pupils that they perceive that one thing is regarded as of more importance than learning or culture; that he esteems

most highly and looks most admiringly on those who are endeavoring to keep in their proper places before God.

Who own his right "to every service they can pay,"
And make it their "supreme delight to hear his dictates and obey."

A TEACHER.

OFFICIAL DEPARTMENT.

MARCH.—The following acts are required of school officers this month:

The Comptroller of Public Accounts will be prepared on the first day of this month to divide the income of the school fund for the past year. Orders will be drawn in favor of the different towns upon receiving a certificate from the school visitors, in form prescribed, that the schools have been kept in all respects according to law. Any school visitor making a false certificate is subject to a fine of sixty dollars. If any school district has not sustained a school which has been kept in all respects according to law for at least six months, the school visitors should state such fact, and the number of children enumerated in such district.

All districts which have sustained a legal school for six months, that do not receive \$35 from the state fund by per capita distribution, are to receive such a sum from the income of the town school tax and town deposit fund as will, with the public money from the state treasury, make the sum of \$35. The balance of income from the town school tax and town deposit fund must be distributed on or before the 4th day of March to the several school districts, and parts of school districts, within the limits of each town, under the direction of the selectmen and school visitors. The whole of the town school tax must be applied for the benefit of common schools without deviation or abatement, and the towns are to account and pay for the use of schools an amount equal to six per cent. interest of the town deposit fund, though the towns may have loaned this fund at a less rate of interest than six per cent.

DAVID N. CAMP,

Superintendent of Common Schools.

NEW BRITAIN, February 16th, 1863.

MISCELLANEOUS EXERCISES.

THE following military terms should be familiar to all. The spelling, pronouncing and defining of them will constitute a good general exercise in school:

ABATIS. Felled trees with their sharp branches placed outward, and so interlaced as to present an irregular and thick row of pointed stakes towards the enemy.

ACCOUTREMENTS. A word which comprises the belts, cartridge-box, bayonet-scarbald, &c., of a soldier. When besides these he has his arms, he is said to be armed and accoutred.

ADJUTANT. The regimental staff officer who assists the colonel or other commander in the details of regimental or garrison duty. When serving with a detachment of a regiment at a post, he is called a post-adjutant. The adjutant is usually selected from the rank of lieutenants, and receives extra pay and allowances. He receives and issues orders, forms the daily parade, details and mounts the guards, &c.

ALIGNMENT. The straight line upon which troops are formed in battle order.

AMBULANCE. An easy carriage or litter for transporting one or more wounded men from the field to a hospital or other place where their injuries may be attended to.

AMBUSCADE,
AMBUSH. } A secret station in which men lie to surprise others.

APPROACHES. The lines of intrenchment, ditches, &c., by which the besiegers approach a fortified place. The principal trenches are called the first, second and third parallels.

APRON. A piece of sheet lead used to cover the vent of a cannon to protect it from the weather.

ARMAMENT. A force equipped for war.

ARMISTICE. A temporary suspension of hostilities.

ARMOR. Defensive arms for the body.

ARMORY. A place in which arms are deposited for use.

ARMSTRONG GUN. A rifle cannon loaded at the breech. Its projectile is made of cast iron, surrounded by two leaden rings placed at the extremity of the cylindrical part, for the purpose of fitting the grooves when it is forced through the bore.

ARSENAL. A place where arms are made and repaired, or deposited, and also where military stores are kept.

ARTILLERY. Troops whose duty it is to serve the cannon, either in the field or in fortifications. They are armed with swords. They are divided into light and heavy artillery. The former have light guns and gun-carriages, which can be taken to pieces, and transported on the backs of horses and mules. The latter have charge of siege and other heavy guns. The artillery usually constitutes about one-tenth of the force.

ASSEMBLY. An army-call beaten upon the drum for assembling the troops by company.

BANQUETTE. A small elevation of earth inside of a fort upon which the soldiers stand to fire over the parapet.

BARBACAN. A fortification before the walls of a town; a fortress at the end of a bridge; an opening in a wall for guns.

BARBETTE GUNS. Guns fired over a parapet with wide range, distinguished from guns in embrasure, which fire through a narrow cut in the embrasure, and with a limited field of range.

BAR-SHOT. Two half-bullets connected by a bar.

BASTION. In fortifications the advanced portion of a regular work consisting of two faces, enclosing a salient angle and two flanks.

BATTALIA. The order of battle.

BATTALION. A body of infantry of two or more companies under one commander.

BATTERY. The frame, mound or parapet on which cannon or mortars are mounted.

BAYONET. A sharp pointed steel dagger, made to fit upon the end of a musket, as an additional weapon.

BOMB. A word formerly used to mean a shell, such as is thrown from a mortar. When mortars or Dahlgren guns are fired upon a place they are said to *bombard* it.

BREACH. An opening made by cannon in a wall or fort, by which infantry troops may attack it.

BREASTWORK. Any wall of defence breast high which shelters infantry in loading and firing upon the enemy.

BREECH. The extremity of a gun near the vent.

BREVET. An honorary commission given to officers for meritorious service, but not affecting the lineal rank except under special circumstances.

BRIGADE. A body of troops consisting of two or three regiments.

BRIGADIER-GENERAL. An officer who commands a brigade. The second rank in our service, next below a major-general and above a colonel.

To be continued.

DWIGHT ELY.

THE death of Mr. Barrett, a graduate of the Normal School, in 1859, has been speedily followed by that of his class-mate, Dwight Ely.

When Mr. Ely graduated his throat and lungs were so weak as to make immediate teaching impossible, and he spent two years in traveling in Florida and Cuba, but returned to Connecticut in 1861, still in feeble health. From that time his disease—consumption—has been making slow but sure progress, and he died on February 1st, at his home in Cromwell, aged thirty-two.

He was a man of more than common power as a teacher, and had been very enthusiastic and successful in the work. It was a great disappointment to him that he could not at once go on with it after leav-

ing New Britain, and for two years he believed he might still be able to do so. But he at last came to see that there was no hope of his recovery, and he prepared himself to meet death with unusual calmness and resignation.

His Christain character through many years of culture had become a noble and manly one, and his death is felt by his friends to be a loss such as can not well be made up, and they are only consoled by the belief that the promise of his early manhood will be fulfilled in the other life on which he has entered.

NORMAL SCHOOL.—The next term of this institution will commence on the 22d of April, and those desirous of attending should make early application to Hon. David N. Camp, New Britain.

In this connection we take pleasure in saying that nearly forty of the pupils now in attendance at the Normal School are subscribers to the Journal. We trust they will not have occasion to regret the step. We believe it is wise for teachers to manifest an interest in their educational periodical and do what they can for its support and improvement.

We are informed that the school examiners of Indiana have voted to add 5 per cent. to the standing or rank of certificates of all candidates whom they examine on learning that they are subscribers to an educational periodical, and we believe they may justly and safely do so.

The following is a copy of certificate given to teachers in Indiana:

TEACHER'S LICENSE.

"Common Schools—the Hope of our Country."

STATE OF INDIANA, }
County, } ss:

having presented satisfactory evidence of good moral character, and having passed an examination in Orthograpy, Reading, Writing Arithmetic, Geography and English Grammar, with the result indicated in the annexed grade, is hereby licensed as a teacher in the public schools of said county for the term of _____ months from date.

GRADE.

Orthograpy,	_____	Elementary Rhetoric,	_____
Reading,	_____	History of the United States,	_____
Writing,	_____	Physiology,	_____
Arithmetic, Mental,	_____		_____
Arithmetic, Written,	_____	Theory and Practice in Teaching,	_____
Geography,	_____	Has taught _____ year,	
English Grammar,	_____	Takes _____	Educational Journal.

GENERAL AVERAGE.—*Explanation.*

1. General Average is made on the six common school branches, but may be modified by other evidences of professional ability.
2. The General Average determines the time of the certificate; 60 to 70 per cent. giving 6 months; 70 to 80, 12 months; 80 to 95, 18 months; 95 to 100, 24 months.
3. No certificate is given when the General Average is under 60, or the per cent. in any one of the six common school branches, under 40.
4. By resolution of Examiners' Convention, the taking of an educational journal entitles to an increase of General Average, 5 per cent.


School Examiner.

TO CORRESPONDENTS.—We must crave the indulgence of our correspondents, some of whose articles we are unable to insert in this number. They shall receive early attention. As one proof of interest in the Journal we may state that the number of well written communications received within the last three months are three-fold more than for any previous term of the same length. Good practical articles will always be acceptable.

We have received many cheering letters from subscribers for which we heartily thank them. One excellent teacher writes: "I, for one, am willing to pay *any price* rather than to be deprived of the benefit which I derive from the Common School Journal."

We hope we may continue the Journal without being obliged to resort to an increase in the subscription price. We shall be grateful to any of our friends who will send us the names of new subscribers. It is not necessary that payment be made in advance. We are perfectly willing to have our subscribers consult their own convenience in this matter.

Our friends in Hartford have done nobly and furnished us with a large list of subscribers. We sincerely thank the teachers for their kindly interest and substantial aid. If all the teachers of the state would imitate their example the Journal would receive a most generous support. Next to the city of Norwich we must place Hartford.

 We are under the necessity of deferring book notices, local items, &c., to our next.

CORRECTION.—In our last we stated that Elias F. Sanford was a member of the 28th Connecticut regiment. We are informed that he is in the 23d.

CONTENTS.—MARCH, 1863.

The Study of Mathematics,	-	-	-	-	-	-	65
A Wise Eclecticism in Teaching,	-	-	-	-	-	-	68
Make Study Interesting,	-	-	-	-	-	-	70
Repetition,	-	-	-	-	-	-	72
Arnold on Punishment—Estimate of Teachers,	-	-	-	-	-	-	73
Some Thoughts about Teaching Geography,	-	-	-	-	-	-	76
<i>Resident Editor's Department.</i>							
School Discipline,	-	-	-	-	-	-	78
Composition,	-	-	-	-	-	-	81
Love of Truth,	-	-	-	-	-	-	83
Words in Earnest,	-	-	-	-	-	-	85
Official Department,	-	-	-	-	-	-	92
Miscellaneous Exercises,	-	-	-	-	-	-	93
Dwight Ely,	-	-	-	-	-	-	94
Normal School,	-	-	-	-	-	-	95
To Correspondents,	-	-	-	-	-	-	96